

# GSL XXII Seminar by: Randy Derr

## "Uncommon Uses for Common Materials in Model Building"

May 1, 2009

GSL XXII Seminar

1

While many of the ideas included herein are the original ideas of the presenter, many are not and I apologize in advance for any "borrowed ideas" used without giving proper credit to their creators, but quite frankly, I can't remember who I borrowed them from.

These ideas are presented as a collection of my favorites, ones I use regularly and I hope you can use and enjoy them too.

May 1, 2009

GSL XXII Seminar

2

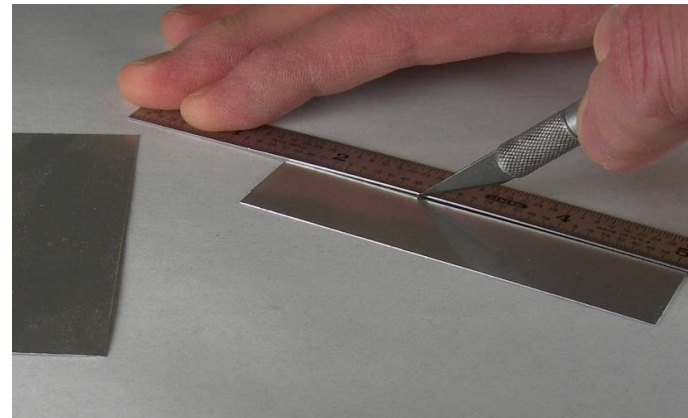


Aluminum flashing is found in the roofing materials department of home supply stores. It is about 0.010" thick with a nice glossy, brushed finish.

May 1, 2009

GSL XXII Seminar

3

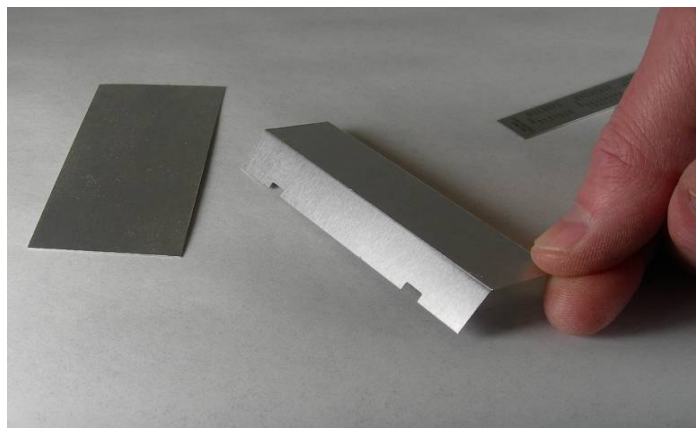


The metal is fairly rigid, but it can be scored and broken to form panels of the desired size and shape.

May 1, 2009

GSL XXII Seminar

4

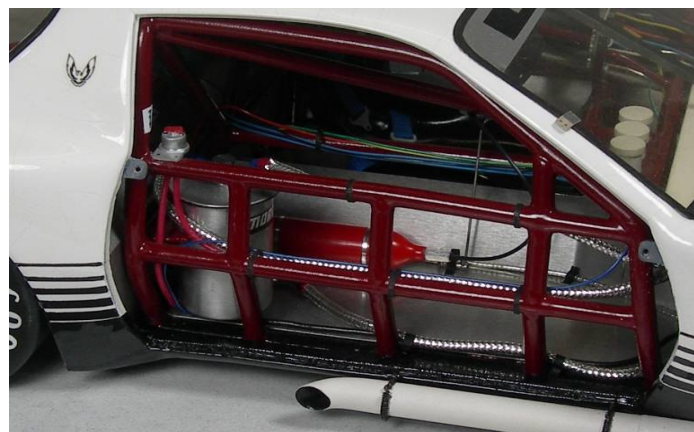


Scoring it lightly and bending it over the sharp edge of a workbench top allows for the forming of more complex panels. Small openings can be drilled and/or filed to shape.

May 1, 2009

GSL XXII Seminar

5

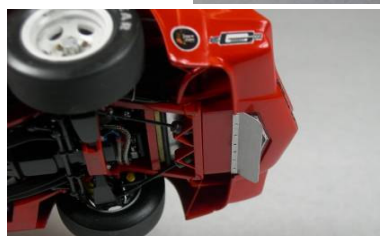


The resulting panels can be used for entire interiors...

May 1, 2009

GSL XXII Seminar

6



...or air dams and spoilers.

May 1, 2009

GSL XXII Seminar

7

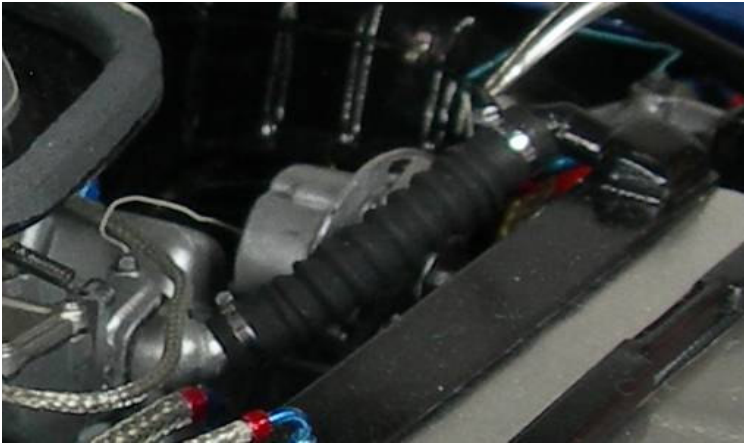


Aluminum furnace tape from a hardware or home supply store is a great source of soft, adhesive-backed aluminum foil that can be used to...

May 1, 2009

GSL XXII Seminar

8



...replicate many different aluminum parts, such as hose clamps, straps, trim pieces, etc..

May 1, 2009

GSL XXII Seminar

9

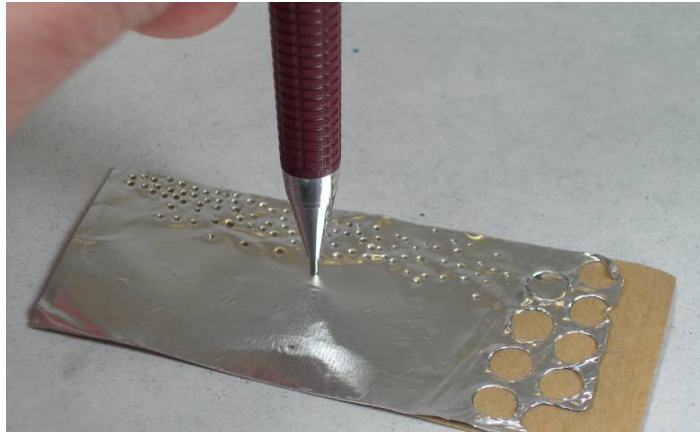


A favorite use involves modifying a Pentel mechanical pencil by sharpening the metal sheath that supports the lead...

May 1, 2009

GSL XXII Seminar

10

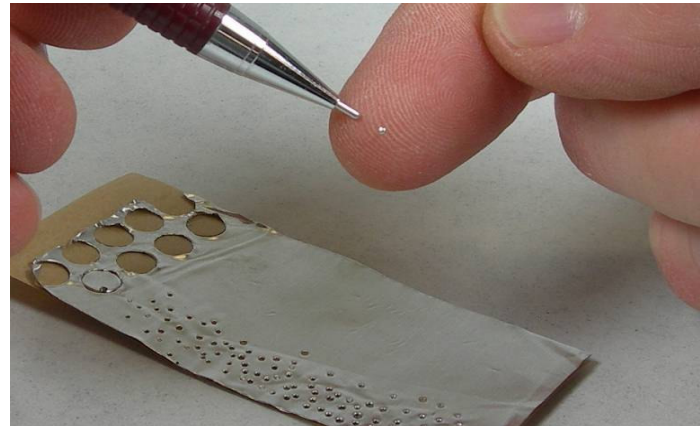


...then using this as a punch to cut out small dots of the aluminum tape...

May 1, 2009

GSL XXII Seminar

11



...which can then be applied using the lead advance mechanism to "eject" the dot...

May 1, 2009

GSL XXII Seminar

12





..to replicate pop-rivets.

May 1, 2009

GSL XXII Seminar

13



Pentel pencils come in several sizes, from 0.3mm to 0.9 mm, providing a good range of scale rivet sizes.

May 1, 2009

GSL XXII Seminar

14



Iron-on rhinestones and studs from a fabric store or sewing department...

May 1, 2009

GSL XXII Seminar

15



...can be used to replicate baby moon hubcaps.

May 1, 2009

GSL XXII Seminar

16





Another fabric store item is ribbon. It comes in a large selection of colors, textures, and sizes, and has many modeling uses, such as...

May 1, 2009

GSL XXII Seminar

17



...tie-down straps for work truck loads. Just add buckles made from aluminum sheet and hooks from small gage wire, give them a black wash to simulate dirt from use and you are finished.

May 1, 2009

GSL XXII Seminar

18



Beading wire found at craft stores...

May 1, 2009

GSL XXII Seminar

19

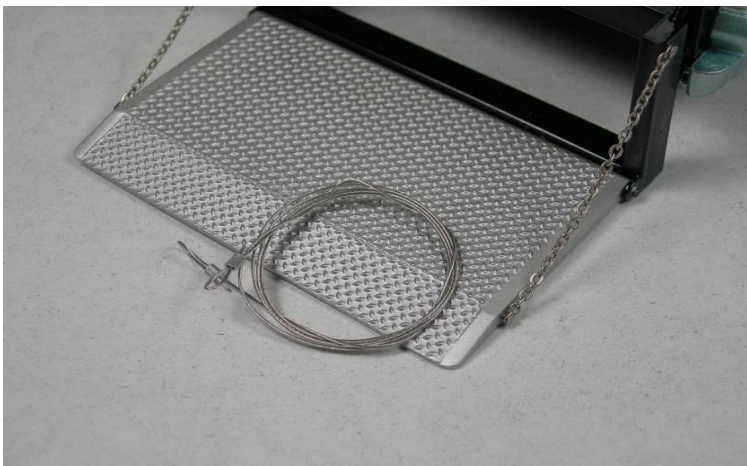


...or fishing line leaders from a sporting goods store can be used to make...

May 1, 2009

GSL XXII Seminar

20



...cables on tow trucks or other work-type vehicles.

May 1, 2009

GSL XXII Seminar

21



A bicycle tire inner tube is a great source for...

May 1, 2009

GSL XXII Seminar

22

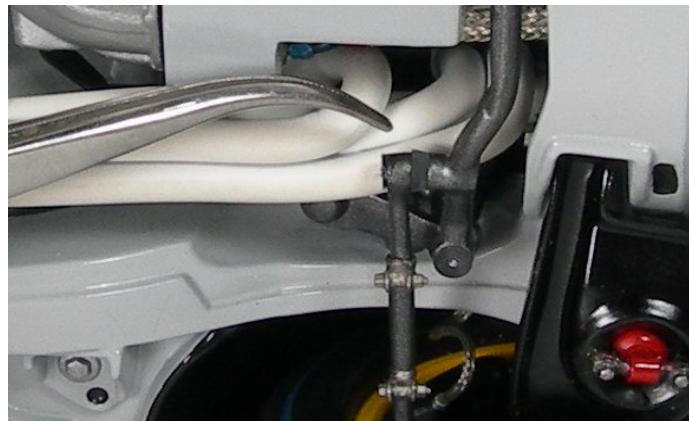


...thin rubber sheet that can be used for to make mud flaps...

May 1, 2009

GSL XXII Seminar

23



...or even tie rod end dust boots for working steering linkage.

May 1, 2009

GSL XXII Seminar

24





A variety of pastel chalks are available at art and craft stores.

May 1, 2009

GSL XXII Seminar

25



Use a hobby knife to shave some of the chalk into a container...

May 1, 2009

GSL XXII Seminar

26

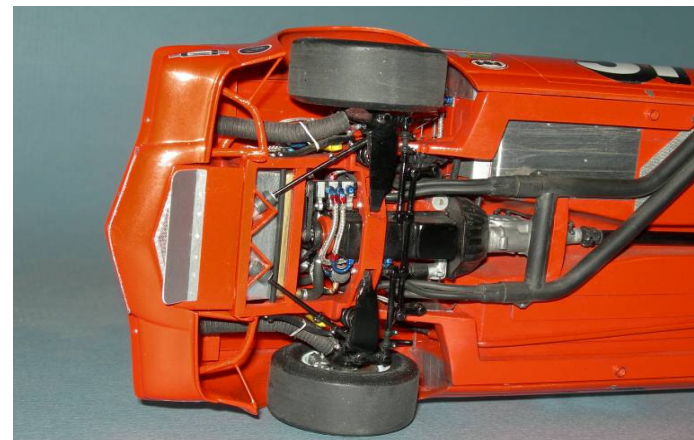


...then use an old paint brush to apply the chalk dust to tire treads to add depth and contrast...

May 1, 2009

GSL XXII Seminar

27



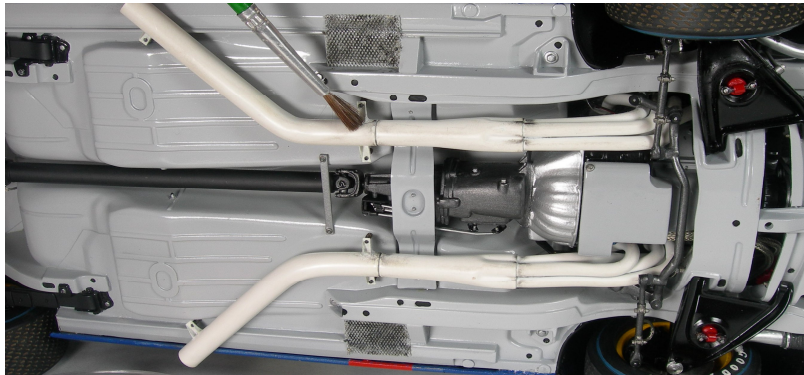
...or engine compartments and underbody areas to mimic subtle weathering...

May 1, 2009

GSL XXII Seminar

28





...or exhaust systems to replicate evidence of small leaks.

May 1, 2009

GSL XXII Seminar

29



A small piece of steel wool soaked in a salt water solution will provide a ready supply of real "rusty weathering" wash.

May 1, 2009

GSL XXII Seminar

30

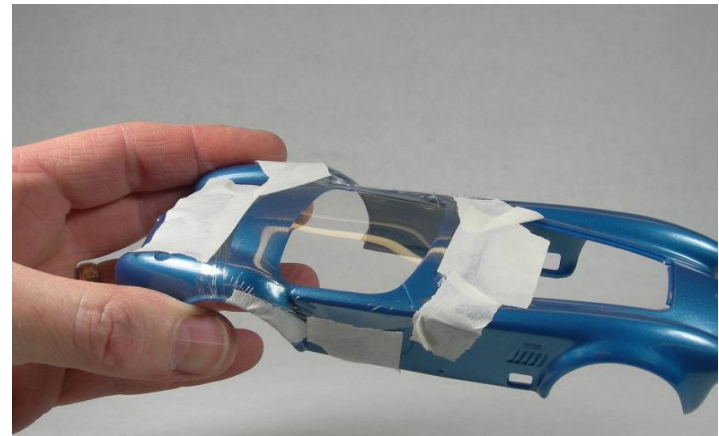


Tissues can be used for many things, but one idea for model building is...

May 1, 2009

GSL XXII Seminar

31



...to fabricate a canvas cover such as a tonneau cover on a sports car. Start by covering the desired area with clear plastic food wrap...

May 1, 2009

GSL XXII Seminar

32



...then apply a piece of tissue to the area, coating it with a mixture of white glue and water. Use caution not to tear the paper and be sure to work out all the trapped air bubbles.

May 1, 2009

GSL XXII Seminar

33



Once the white glue is dry, carefully remove the paper from the plastic wrap, cut to final shape, paint the desired color and add some rivet detail prior to gluing into position.

May 1, 2009

GSL XXII Seminar

34

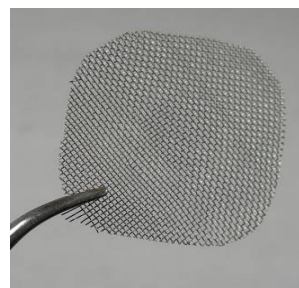


Filter hose washers can be found in the plumbing department of the local home improvement store.

May 1, 2009

GSL XXII Seminar

35



The fine mesh can be used to duplicate the air intakes screens seen on '60's drag cars or stock cars.

May 1, 2009

GSL XXII Seminar

36



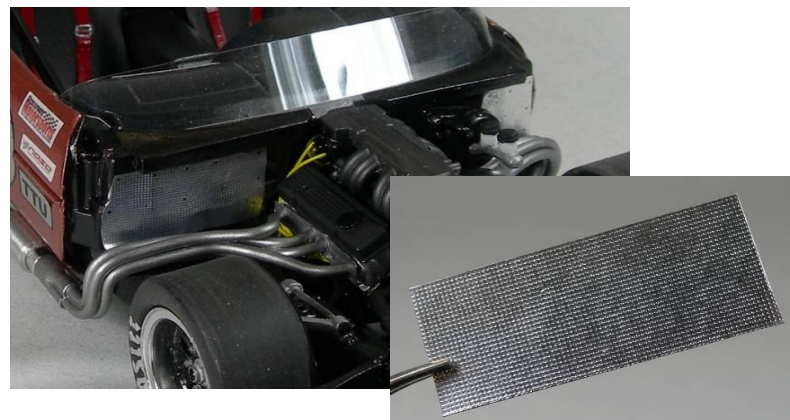


Wrapping foil can be found at cake decorating supply stores or in the cake decorating department of hobby and craft stores.

May 1, 2009

GSL XXII Seminar

37



The foil has an embossed pattern that replicates the heat insulation material used on racing vehicles.

May 1, 2009

GSL XXII Seminar

38

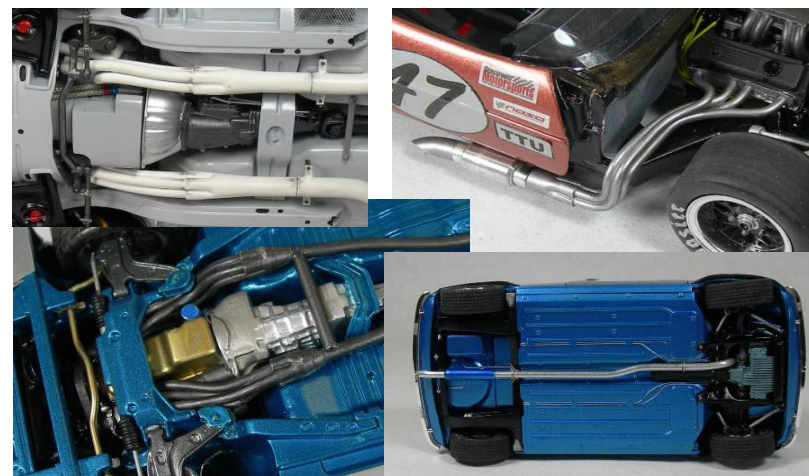


Solder comes in many sizes and has numerous uses in building and detailing models, such as...

May 1, 2009

GSL XXII Seminar

39



... headers and exhaust pipes...

May 1, 2009

GSL XXII Seminar

40





... even radiator hoses and plug wires.

May 1, 2009

GSL XXII Seminar

41



Googly Eyes found at the craft store can be used to replicate...

May 1, 2009

GSL XXII Seminar

42



...headlight lenses. Just cut the lens from the backing and attach to a "bulb and reflector" made from aluminum or plastic tubing.

May 1, 2009

GSL XXII Seminar

43



Woven ribbon found at a fabric or craft store comes in many styles and colors and can replicate...

May 1, 2009

GSL XXII Seminar

44



...debris screens on race car grills.

May 1, 2009

GSL XXII Seminar

45



Fishing line comes in many colors and diameters and can duplicate...

May 1, 2009

GSL XXII Seminar

46



...fuel lines and cables in the engine compartment.

May 1, 2009

GSL XXII Seminar

47



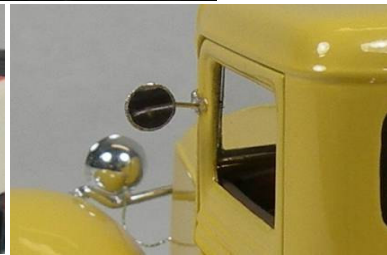
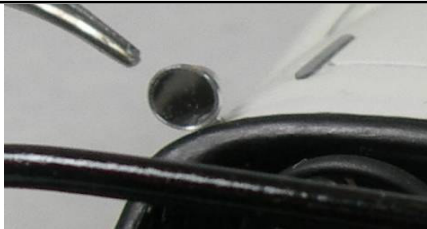
Chrome mylar tape can be found at auto parts stores as "Bumper Repair Tape" and can be used for making...

May 1, 2009

GSL XXII Seminar

48





...mirror "glass" for rearview mirrors...

May 1, 2009

GSL XXII Seminar

49



...or even skid rails in pick-up beds.

May 1, 2009

GSL XXII Seminar

50



Standard cloth athletic tape can be painted and used to duplicate...

May 1, 2009

GSL XXII Seminar

51



...heat insulation blanket material.

May 1, 2009

GSL XXII Seminar

52



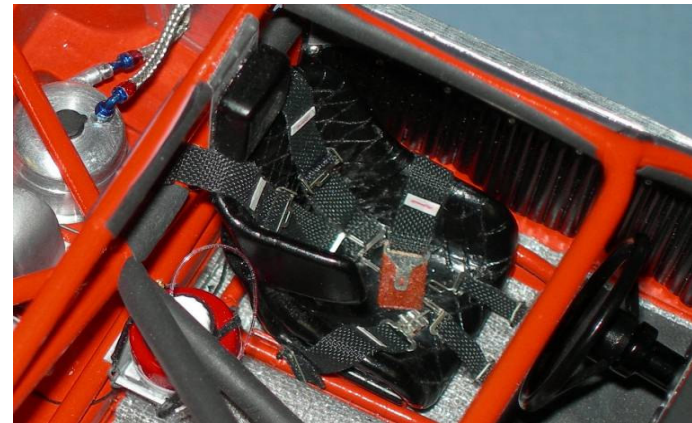


Adhesive-backed nylon found in fabric stores makes excellent...

May 1, 2009

GSL XXII Seminar

53



...seat belt material, as it is thin enough to thread through photo-etched buckles and the adhesive allows the material to be doubled over to hold to itself.

May 1, 2009

GSL XXII Seminar

54

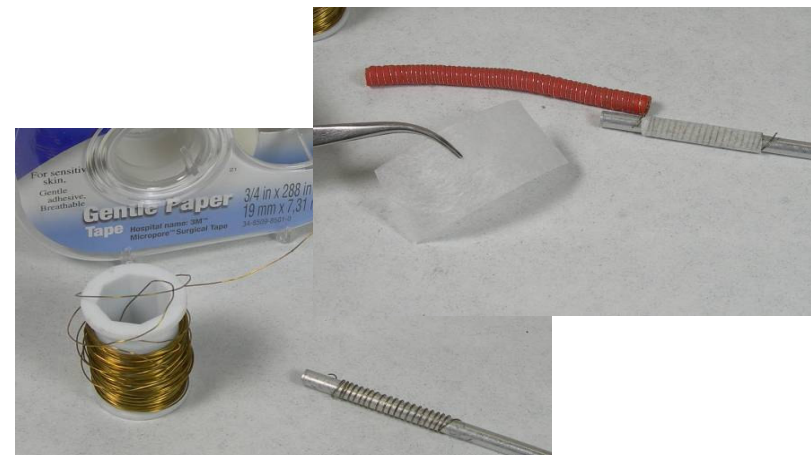


Paper surgical tape can be combined with...

May 1, 2009

GSL XXII Seminar

55

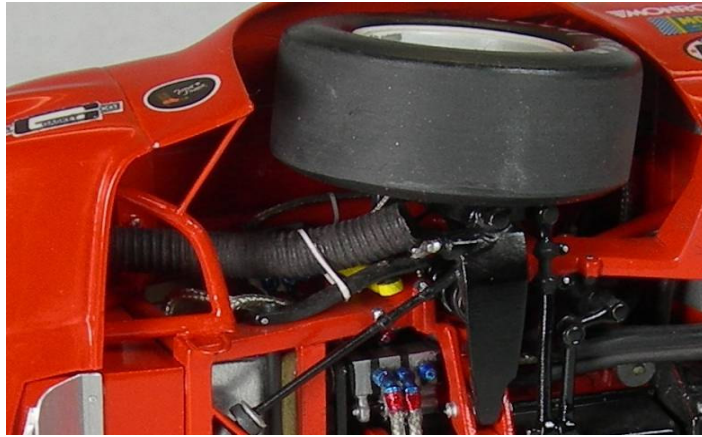


...a coil of fine wire wrapped around an appropriately sized tube. Cover the "spring" with the tape, then paint to suit...

May 1, 2009

GSL XXII Seminar

56

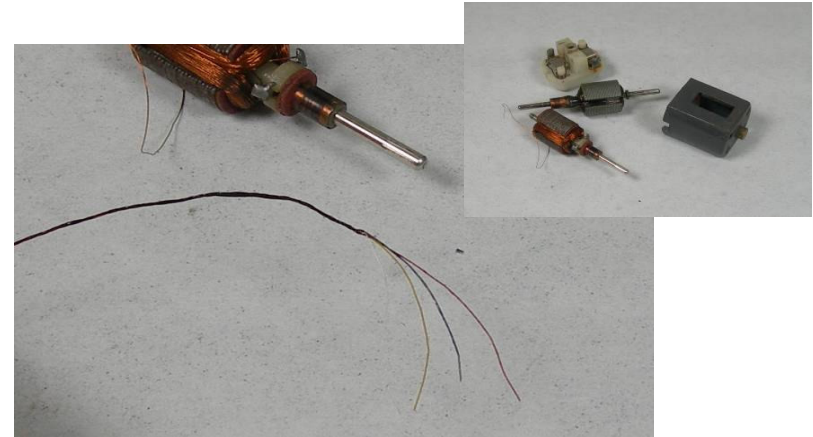


...to make very realistic brake cooling ducts.

May 1, 2009

GSL XXII Seminar

57

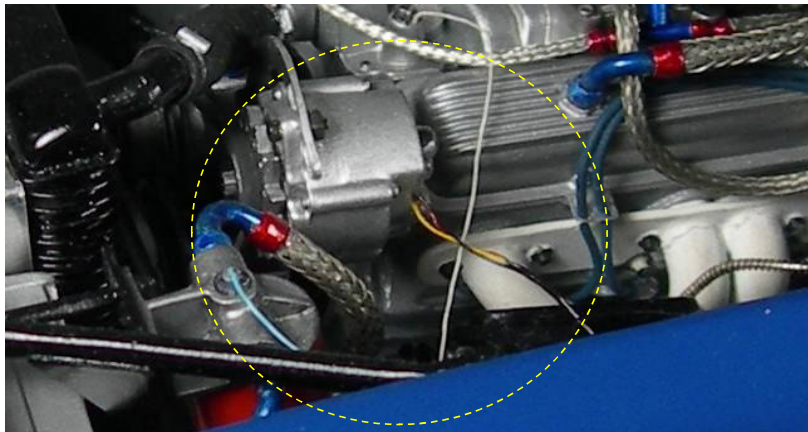


Armature wire from old slot car motors can be twisted together and painted to make...

May 1, 2009

GSL XXII Seminar

58



...a convincing engine wiring harness.

May 1, 2009

GSL XXII Seminar

59



Guitar strings from a music store are an excellent source for very small (0.008" - 0.010" diameter) music wire that can be use to make...

May 1, 2009

GSL XXII Seminar

60



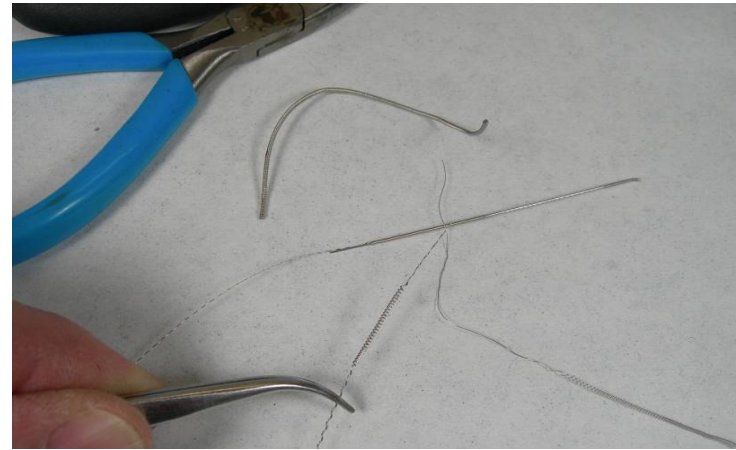


...hood pins or even torsion bar springs to hold up trunk lids or...

May 1, 2009

GSL XXII Seminar

61



...the pre-wound strings can be "un-wrapped" to provide ready made scale springs to use as...

May 1, 2009

GSL XXII Seminar

62



...throttle return springs or other small coil springs.

May 1, 2009

GSL XXII Seminar

63



A toothbrush is an great source for small diameter nylon bristles that can duplicate a radio antenna. These flexible bristles are a much safer and durable choice than the more commonly used music wire.

May 1, 2009

GSL XXII Seminar

64





Braided nylon line used for fishing line or for beading crafts replicates...

May 1, 2009

GSL XXII Seminar

65



...the black braided brake and oil lines used on vintage race cars.

May 1, 2009

GSL XXII Seminar

66



Ping pong balls are made from thin styrene plastic and can be used for...

May 1, 2009

GSL XXII Seminar

67

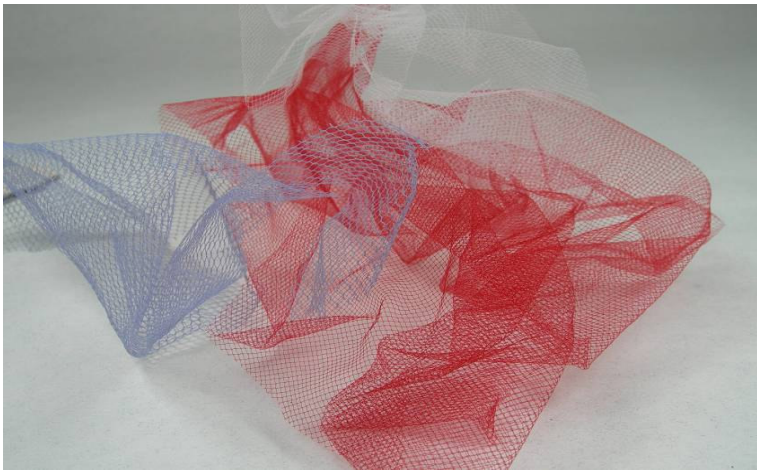


...making headlight covers or any other spherically-shapes parts. Just sharpen a piece of brass tubing and use it as a punch to make discs.

May 1, 2009

GSL XXII Seminar

68

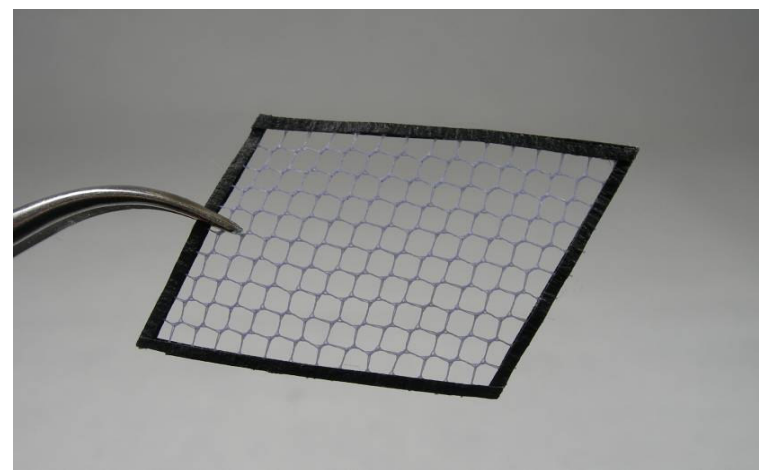


Common nylon netting found at fabric stores can be...

May 1, 2009

GSL XXII Seminar

69



...cut to shape, outlined with tape and painted to replicate...

May 1, 2009

GSL XXII Seminar

70



...window safety netting.

May 1, 2009

GSL XXII Seminar

71



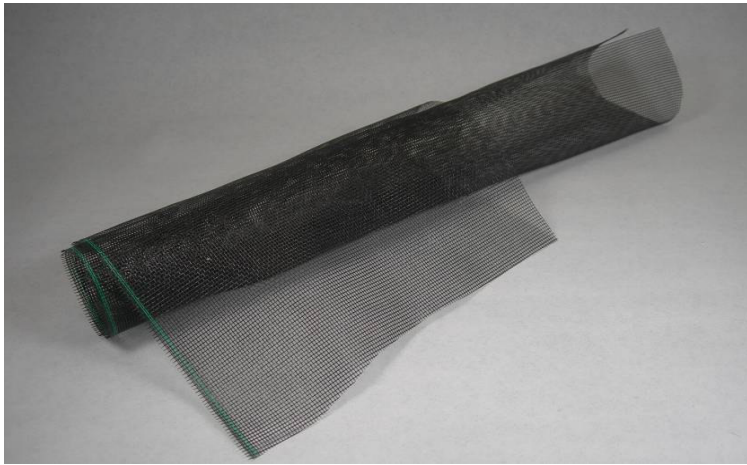
It is even available in several mesh sizes so it can be used in most any scale as shown in this 1/24th vs. 1/43rd comparison.

May 1, 2009

GSL XXII Seminar

72



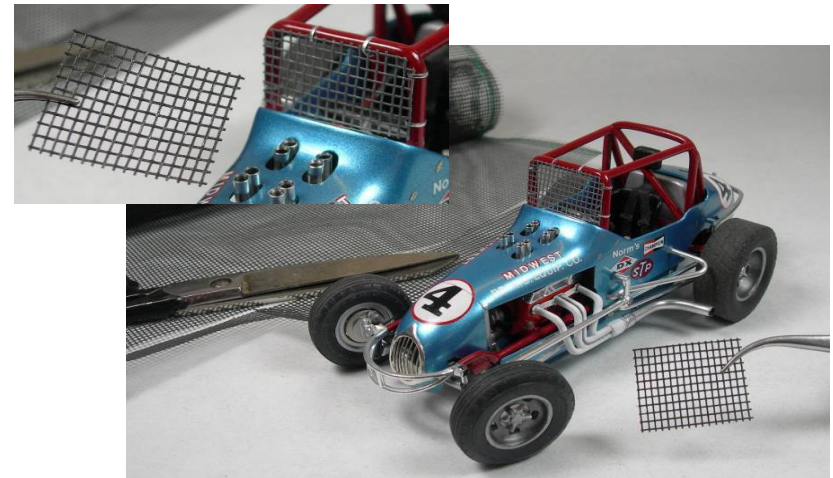


Window screen or "hardware cloth" as it is sometimes referred to is now typically made from plastic instead of metal and can be used to...

May 1, 2009

GSL XXII Seminar

73



...duplicate the window mud screen found on dirt track racers.

May 1, 2009

GSL XXII Seminar

74

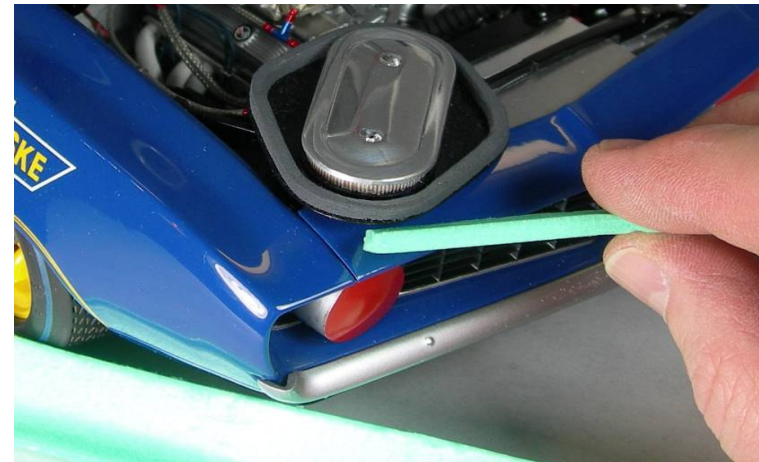


Foam egg cartons or food packaging trays come in various thicknesses and densities and can be easily cut and painted to duplicate...

May 1, 2009

GSL XXII Seminar

75



...air cleaner foam or under-hood sealing gaskets.

May 1, 2009

GSL XXII Seminar

76



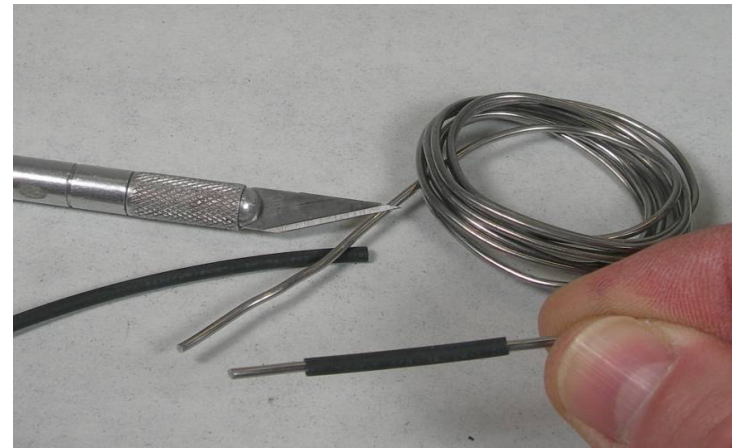


Electrical tape makes convincing air dam skirts when cut to size and detailed with some rivets. It is also available in a variety of colors to suit your particular needs.

May 1, 2009

GSL XXII Seminar

77



Heat shrink tubing can be slipped over solder and *carefully heat shrunk* to replicate...

May 1, 2009

GSL XXII Seminar

78



...radiator hoses or...

May 1, 2009

GSL XXII Seminar

79

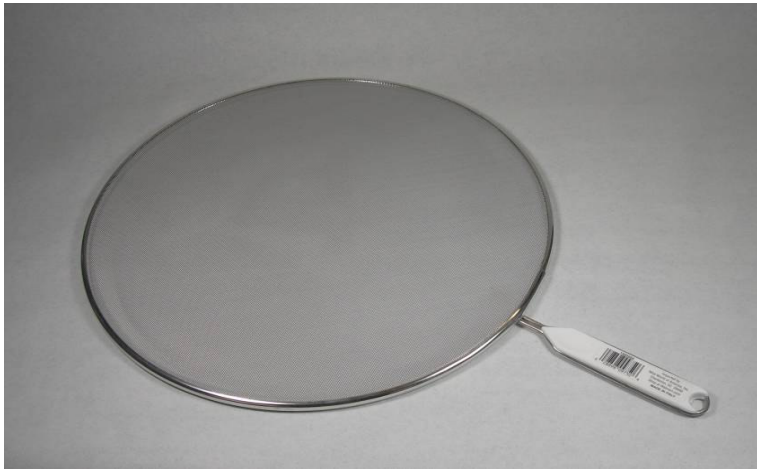


...it can be slit and applied to roll cages as padding.

May 1, 2009

GSL XXII Seminar

80

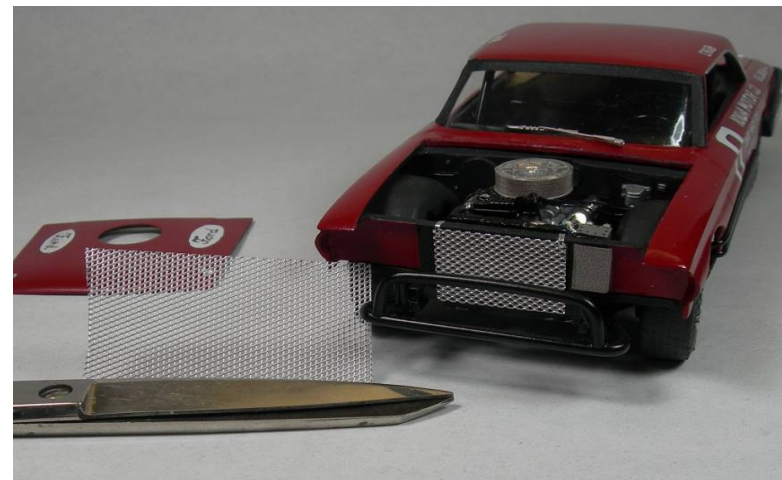


A frying pan splatter shield can be cut and used as...

May 1, 2009

GSL XXII Seminar

81

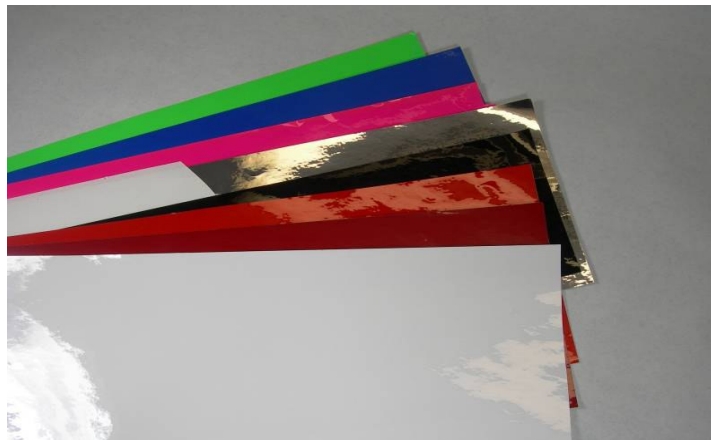


...mud screen for old dirt trackers.

May 1, 2009

GSL XXII Seminar

82



MonoKote trim is a very thin, adhesive-backed mylar that can be found at R/C airplane shops. It comes in a variety of colors and has many uses.

May 1, 2009

GSL XXII Seminar

83

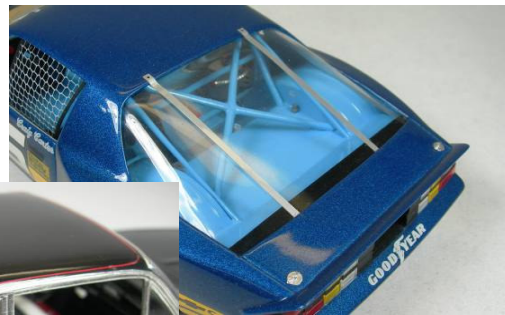


Such as graphics or chrome trim strips...

May 1, 2009

GSL XXII Seminar

84



...or even pin stripes or window straps.

May 1, 2009

GSL XXII Seminar

85



Small electrical components such as resistors and diodes found at Radio Shack can be painted and detailed to replicate fuel filters.

May 1, 2009

GSL XXII Seminar

86



Vinyl paint, shoe dye or "suede" paint is available in a variety of colors and sheens and...

May 1, 2009

GSL XXII Seminar

87



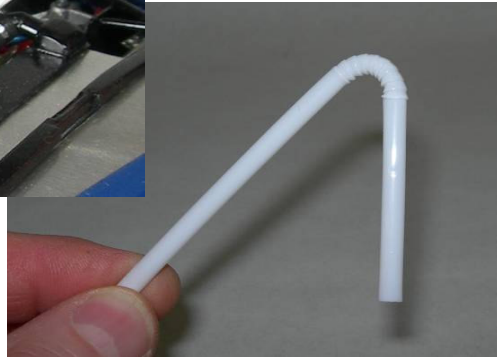
...can really help to add realism to interior trim panels

May 1, 2009

GSL XXII Seminar

88



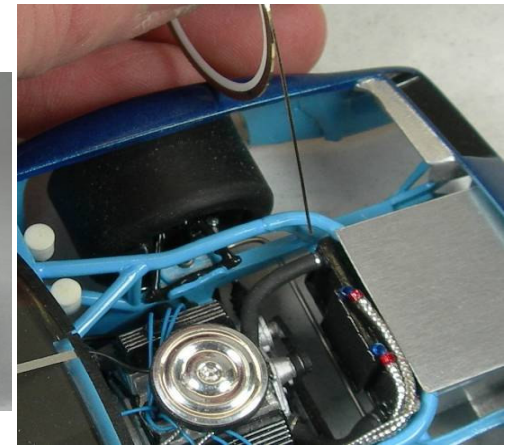


Juice box drinking straws can be cut and painted to replicate corrugated radiator hoses on larger scale cars.

May 1, 2009

GSL XXII Seminar

89



1/64" Chrome nail striping tape from a beauty supply store makes duplicating scale hose clamps a simple task.

May 1, 2009

GSL XXII Seminar

90



And since you are already in the store, pick up some of the various foam nail boards for sanding sticks, as well as some squirt bottles and pipettes for your paint booth.

May 1, 2009

GSL XXII Seminar

91



Aluminum pans can be found in the cooking aisle of your grocery store or as leftover packaging from baked goods. These come in various thicknesses, tempers and finishes and...

May 1, 2009

GSL XXII Seminar

92



...can be cut and bent into any shape and be used for interior panels, blank-off panels...

May 1, 2009

GSL XXII Seminar

93



...trim panels...

May 1, 2009

GSL XXII Seminar

94

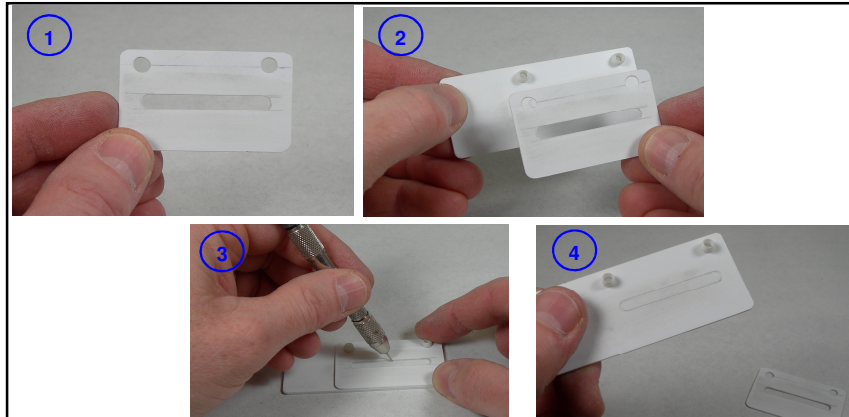


...or any number of various parts and details.

May 1, 2009

GSL XXII Seminar

95



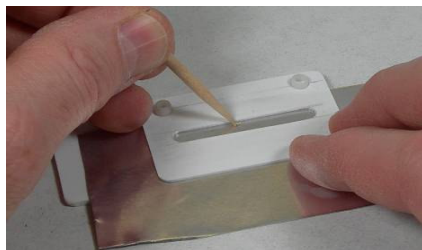
Here's a neat way to duplicate bead-rolling on those interior aluminum panels: First cut out the pattern in a piece of 0.030" sheet plastic and add two locator holes. Make a matching base with two posts to align with the holes on the template. Use a needle-point needle to scribe the pattern into the base plate, creating a groove about 0.020" deep.

May 1, 2009

GSL XXII Seminar

96



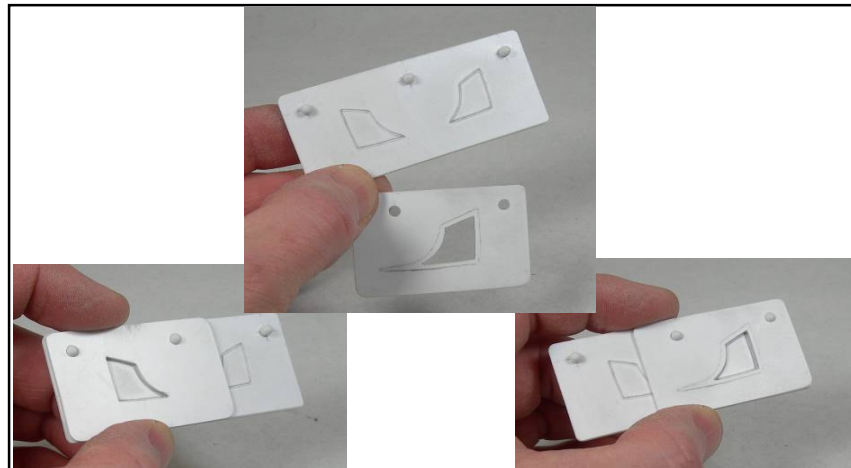


Slide a piece of aluminum pan material in between the pattern and the base and emboss it following the template using a pointed wooden dowel to create the raised bead. Cut the piece to shape and install.

May 1, 2009

GSL XXII Seminar

97



Making matching left-hand/right-hand panels is also easy; just make two sets of pegs on the base and flip the template to produce the mirror-image panels.

May 1, 2009

GSL XXII Seminar

98



And finally, an oldie, but a goodie.

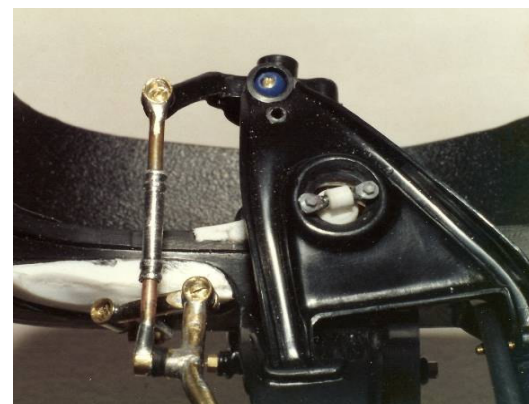
I include it as a tribute to Don Emmons. His "Detail for Real" column in Model Car Science Magazine formed the basis for my modeling building.

Map pins come in many sizes and colors and can be used to replicate many round objects on cars such as shift knobs, as well as...

May 1, 2009

GSL XXII Seminar

99



...working scale ball joints. Remove the plastic head of a map pin and drill out the center hole to accept a jeweler's screw. Next, drill a blind hole in the control arm slightly larger than the pin head. Insert the "ball joint" through the control arm and thread it into the knuckle.

May 1, 2009

GSL XXII Seminar

100